

HALASI, Zoltan; GENCSI, Pal, formernok

The 1964 innovation plans for the Investment Enterprise of Power Plants. Energia es atom 17 no.3:144-145 Mr '64.

1. Director, Power Plant Investment Enterprise, Budapest (for Halasi). 2. Power Plant Investment Enterprise, Budapest (for Gencsi).

Pathology

HUNGARY

LEHOCZKY, Tibor, Dr, SOS, Jozsef, Dr, HALASI, Margit, Dr; Istvan Hospital, Neurological Ward (chief physician: LEHOCZKY, Tibor, Dr, titular professor) (Istvan Korhaz, Idegosztaly), and Medical University of Budapest, Institute of Pathophysiology (director: SOS, Jozsef, Dr, professor) (BOTE -- Budapesti Orvostudomanyi Egyetem, Korelettani Intezet).

"Neurological Changes in Avitaminosis B₁₂ Animal Experiments."

Budapest, Idegyogyaszati Szemle, Vol XX, No 1, Jan 67, pages 5-10.

Abstract: [Authors' Hungarian summary] Changes in the central and peripheral nervous system produced in white rats by avitaminosis B₁₂ are reported for the first time in the world literature. The changes were essentially identical with the characteristic neuro-pathohistological changes (myelopathy, nerve cell degeneration) associated with pernicious anemia. The lesions, such as the rare or absent glial reaction and the widespread, severe injury of the nerve cells, are explained by the more intensive biochemical effect of the experimental lack of B₁₂. 2 Eastern European, 6 Western references.

HALMA, Peter

Mechanika kornin a cyzne nanslych diel. Chit 1. Zadani i zadani
vsemin. (Mechanics of rocks and their properties and limits of use. Ch. 1.
Fundamentals of the mechanics of rocks. Part 1, tasks and assignments, etc.).
Bibliografický katalog, č. 1, Slovenská Akad. vied. Mat. fak. Filoz. fak. 1961-1962.

GRIESBACH, S.; GRESSNER, E.; DORNETZHUBER, V.; URMINSKY, A.; HALAS, M.

Long-term study of chronic pyelonephritis in adults. Rozhl.
chir. 42 no. 5:314-320 My '63.

1. Urologicke oddelenie OUNZ v Nitre, veduci MUDr. S.
Griesbach Interne oddelenie OUNZ v Topolcanoch, veduci MUDr.
E. Gressner Patologicke oddelenie OUNZ v Nitre, veduci MUDr.
V. Dornetzhuber.

(PYELONEPHRITIS) (HYDRONEPHROSIS)
(NEPHRECTOMY) (HYPERTENSION, RENAL)

HUNGARY

LEHOCZKY, Tibor, Dr., HALASY, Margit, Dr.; Capital City Istvan Hospital, Neurological Ward (Fovarosi Istvan Korhaz Idegyogyaszati Osztalya).

"The 'Benign' Form of Multiple Sclerosis."

Budapest, Idegyogyaszati Szemle, Vol XIV, No 7, July 1963, pages 212-217.

Abstract: [Authors' Hungarian summary] The authors report on a study of 62 patients with multiple sclerosis. These cases belong to the 'benign' form of the disease. Some cases with symptoms characteristic of the three sub-groups of the disease are described. The methods (rest, rehabilitation) which might facilitate the stabilization of the disease are discussed. The need is stressed for the establishment of convalescent homes and institutes of rehabilitation. Tb sanitariums might fill the need in the former, polio rehabilitation centers in the latter case. 1 Hungarian, 10 Western references.

2473

1/1

HALASA, M.; BYSTRICKY, V.; LADZIANSKA, K.; KRCMERY, V.; NERMUT, M.

Electron microscope determination of the effect of polymyxin on
Leptospira in vitro. Cesk. epidem. 11 no.5:305-307 S '62.

1. Statny veterinarny ustav, pobocka v Bratislave. -- Laboratorium
elektronovej mikroskopie Katedry techn. mikrobiologie a biochemie SVST
v Bratislave. -- Katedra obecnej biologie Lekarskej fakulty Univerzity
J.Ev. Purkyne v Brne.

(LEPTOSPIRA) (POLYMYXIN)

HALASA, M.; KRCMERY, V.

The effect of some antibiotics, particularly polymyxin, on Leptospira strains in vitro. Cesk. epidem. mikrob. imun. 11 no.4:267-275 Jl '62.

1. Statny veterinarny ustav, pobocka v Bratislave.
(ANTIBIOTICS pharmacol) (LEPTOSPIRA)

HALASA, Milos

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: DVM

Affiliation:

Source: Prague, Veterinarstvi, Vol 11, No 9, Sept 1961; pp 331- 332

Data: "Infectious Hepatitis and Appendicitis as a Serious Problem in Intensive
Turkey Breeding"

HALASA, Milos ; State Veterinary Institute, Bratislava (Statny veterinarni ustav)

SVEC, Rudolf ; Poultry Breeding Research Institute (Vyskumny ustav pre chov hydiny)
PCSAPV /not identified/ Ivanka pri Dunaji

src 981643

HALASA, M.

CZECHOSLOVAKIA / Farm Animals. Honey Bee. Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40556.

Author : Halasa M. Unger A., Randa II.

Inst : Not given.

Title : The Problem of Bee Diseases in Slovakia and
the Prospects of the Fight Against Them.

Orig Pub: Veterin casop., 1957, 6, No 5, 379-392.

Abstract: From among the bee diseases in Slovakia, the most widely spread is nosematosis (10.1% - 13.5% of the investigated colonies). The situation is relatively good as regards acarapidosis. Isle of Wight disease? The poisoning of bees with wastes of industrial gases and insecticides is discussed.

Card 1/1

CZECHOSLOVAKIA/Zooparasitology - Helminths.

G.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67529

Author : Halasa, M., Luebke, R., Rosko, I.

Inst :

Title : The Spread of Fasciolasis and Pulmonary Nematodes in the Sheep and Cattle of Slovakia, and Prospects of Combating Them.

Orig Pub : Veterin. casop., 1957, 6, No 4, 293-304.

Abstract : No abstract.

Card 1/1

KRATOCHVIL, I.; HALASA, L.

Forensic bases of the hygienist's activities. Česk. hyg. 8 no.1:
58-61 F '63.

1. KHEs Kosice — Krajsky sud Kosice.
(JURISPRUDENCE) (HYGIENE)

HALASA, Jozef

A new method for the isolation of Streptomyces mutants. I. Acta
microbiol. pol. 10 no.4:389-394 '61.

1. Z Zakladu Mikrobiologii Pomorskiej Akademii Medycznej w Szczecinie.
(STREPTOMYCES)

HALASA, Jozef; PIETKIEWICZ, Dalila

High anti-Rh antibody titer in "homo-specific" pregnancy. Pol. tyg.
lek. 17 no.19:759-761 7 My '62.

l. Z Zakladu Mikrobiologii PAM w Szczecinie; kierownik: prof. dr
Wanda Murczynska.

(RH FACTORS) (PREGNANCY immunol)

HALASA, J.

ENTOMOLOGY & ECOLOGY

Periodicals: PRASY SPPĚSKA. Vol. 35, No. 1, 1977. (Cat.)

Halasa, J. Rock hills of the Strazov Range. Pt. 1. (VZLIL 342) p. 367.

Monthly List of East European Accessions (E.E.) LC Vol.2, No. 4, April 1979.
Includes.

EXCERPTA MEDICA Sec 4 Vol. 10/10 Microbiology Oct 57

2329. HALASA J. Zakl. Mikrobiol. Pomorskiej Akad. Med., Szczecinie. *Miano antytoksyny błonicy we krwi pępowinowej. The diphtheria antitoxin titre in cord blood ROCZNIK P. A. M. 1956, 1956, II(185-193) Tables 4 Tables 4

The blood antitoxin level was found insufficient in 31% of newborn babies in Szczecin and environs. With the aim of strengthening the defences against diphtheria, the author recommends that children should be actively immunized as early as in the first few weeks after birth.

Adamski - Poznań

HALAS,Zoltan.

Training technicians for the Hungarian textile industry
Tekst.prom. 15 no.6:49-50 Je '55. (MIRA 8:7)
(Hungary--Textile industry--Study and teaching)

G/029/63/000/002/002/005
A026/A126

AUTHOR: Halaš, Z. (Chomutov, ČSSR)

TITLE: New lubricants for drawing tubes, under special consideration
of austenitic steels

PERIODICAL: Neue Huette, no. 2, 1963, 86-91

TEXT: Based on lab tests and investigations under industrial conditions a chlor-paraffin with a 40% chlor content has been introduced as lubricant for the cold drawing of tubes made of austenitic Cr-Ni and CrNi-Mo-steels. The chlor-paraffin lubricant has also been used successfully in the drawing of Mo-wire, in deep-drawing of sheet metals, and in the drawing of copper tubes. The application of the lubricant to the tube surfaces is either done by immersing the bundles of tubes in a chlor-paraffin bath heated to 80°C, or in a bath of chlor-paraffin diluted with tetrachloroethane or trichlorethylene. The average consumption of chlor-paraffin in cold drawing of seamless tubes of austenitic steels is 10 kg/t. Detailed descriptions of the tests and tabulated results supported by graphs are given. There are 12 figures and 9 tables.

SUBM: October 15, 1962

Card 1/1

HALAS, Z. (Vengerskaya Narodnaya Respublika)

New types of medical equipment at the industrial exhibition of the
Hungarian People's Republic. Med.prom. 14 no.11:59-62 N '60.
(MIRA 13:11)

(HUNGARY--MEDICAL INSTRUMENTS AND APPARATUS)

HALAS, Z.

Textile vocational education in Hungary. p. 42.
L'KA PSMIDZHENOST, Sofiya, Vol. 4, no. 2, 1955.

SO: Monthly List of East European Accessions, (S&AL), L, Vol. 4, no. 10, Oct. 1955,
Uncl.

ONICII, L.; HALAS, R.

Complexes of trivalent metals with organic hydroxy acids. Pt. 12.
Studia Univ. E-B S. Chem. 7 no.2:7-14 '62.

A
HALASX, Jozef

New method of isolation of mutants of Streptomyces. Part II.
Acta microbiol. Pol 13 no.3:187-190 '64.

New method of isolation of mutants of Streptomyces. Part III.
Ibid. p191-193

1. From the Department of Microbiology, the Pomeranian College
of Medicine, Szczecin.

HALAS, Henryk, mgr

Economizing nonferroous metals. Przegl mech 24 no.9.257-259 10
Maj '65.

1. Senior Adviser in the Division of Economizing Metals of the
Collective for Metallurgy of the Planning Commission at the Council
of Ministers, Warsaw.

NOWAK, Kazimierz; HALAS, Henryk; PAPRZYCKI, Oswald

Comparison of the strength of certain angle joints used
in joining furniture parts made of flexboard. Roczniki
wyz szkola rol Poznan 16: 43-48 '63.

1. Laboratory of the Technology of Wood Products,
Department of Mechanical Technology of Wood, College
of Agriculture, Poznan.

HALAS, H.

The utilization of quarries in winter. p. 266. (Panstwowe Wydawnictwa Techniczne) Krakow Vol. 10, no. 12, Dec. 1954 CEMENT, WAPNO, GIPS

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

BARWICZ, Wieslaw; HALAS, Andrzej; KLEMPER, Mieczyslaw; TURCZYK, W.

Studies on cold cathodes. Wykopalisko do sprawy Aeronautyki. Warszawa
Ap '63

1. Katedra Elektroniki, Politechnika Warszawska.

P/053/62/000/006/008/009
I010/I210

The technology of the...

spacers causing shorts. A 10-piece series is now being examined in the Dept. of Electronic Measurements of the Wroclaw Polytechnic. The work was started in 1959. There is 1 figure.

ASSOCIATION: Przemysłowy Instytut Elektroniki (Industrial Institute of Electronics)

Card 2/2

P/053/62/000/006/008/009
I010/I210

AUTHORS: Hałas, Andrzej, Moraw, Michał, Szreter, Mirosław,
Zdanowski, Jerzy.

TITLE: The technology of the Nodistron type digital
indicator tube

PERIODICAL: Przegląd Elektroniki, no.6, 1962, 336-338

TEXT: A prototype series of digital indicator tubes of
the "Nixie" type has been prepared in the Dept. of Electronics
of the Wrocław Polytechnic. The investigations showed that
constantan used as the material for the digits evaporates after
a long operation time of one digit and it deposits on the ceramic

Card 1/2

HALAREWICZ, Konrad, Inz.

Explanations of the State Inspectorate of Fuel and Power
Management. Gosp paliw 11 no.2:60-61 F '63.

1. Dyrektor Zespolu Elektroenergetyki, Państwowy Inspektorat
Gospodarki Paliwowo-Energetycznej, Warszawa.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800022-6

MANDEL, Jakub, mgr inz.; HALAREWICZ, Konrad, mgr inz.

Communiqué concerning the results of the First National
Polish Contest of Fuel and Power Consumption. Gosp paliw
12 no.10:347 0 '64.

100000

ACC NR APPROVING

function of $f(z)$. The solution of this equation defines the reverse function $x(y)$ for the function $y = f(x)$ where $x \neq 0$. The point $y = 0$ gives the value of the root of the equation $x^m = z$. This is a simple procedure for obtaining iterative methods of higher order. This paper was presented by Academician V. N. Strakov. Orig. art. has: 26 formulas and 1 table.

SUB CODE: 32/ SUM DATE: 02 Dec 64/ ORIG RPT: 001

Card 2/2

L 306.0002852
ACC NR: AP6002852

SOURCE CODE: URAN01/URAN02/URAN3/URAN4

AUTHOR: Halanov, B. O.--Gajjanov, R. A.

ORG: Institute of Cybernetics, Kiev Department of the All-Union State Planning Institute "Teploelektroprojekt" (Institut planirovaniya i kiberneticheskogo viddilenniya Vsesoyuznogo gosudarstvennogo proyektinstituta po "Teploelektroprojekt")

TITLE: General procedure for obtaining methods of solving the nonlinear equation

SOURCE: Mat. fiz. ISR, Dneprovsk, no. 12, 1965, 1533-1537

TOPIC TAGS: nonlinear equation, iteration, approximation method, differential equation, function, root calculation

ABSTRACT: A procedure for obtaining iterative methods for solving the nonlinear equation $f(x) = 0$ is described. The procedure is based on approximation methods for solving the differential equation $\frac{d^n x}{dx^n} = F(x)$, where function $F(x)$ is constructed in accordance with the dyn

Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800022-6

HALANAY, A.

An optimal problem for discrete systems. Probleme automatiz
103-109 5 N '62.

Differential inequalities with lag and

S/044/63/000/002/017/050
A060/A126

implies stability according to the exponential law of the trivial solution of
the equation

$\dot{x}(t) = A(t)x(t) + B(t)x(t - \tau)$
with τ satisfying a certain inequality.

L.E. El'sgol'ts

[Abstracter's note: Complete translation]

Card 2/2

8/044/63/000/002/017/050
A060/A126

AUTHOR: Halanay, A.

TITLE: Differential inequalities with lag and their application to a problem in the theory of stability of systems with lag

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1963, 43, abstract 2B191
(Comun. Acad. RPR, 1961, v. 11, no. 11, 1,305 - 1,309; Rumanian; summaries in Russian, French)

TEXT: The following lemma is demonstrated: If

$$f'(t) \leq -\alpha f(t) + \beta \sup_{t-\tau \leq s \leq t} f(s),$$

for $t \geq t_0$, $\tau > 0$, where $\alpha > \beta > 0$, then there exist $\gamma > 0$ and $k > 0$ such that $f(t) \leq k e^{-\gamma(t-t_0)}$ for $t > t_0$. With the aid of this lemma it is demonstrated that uniform asymptotic stability of the trivial solution of the equation

$$\dot{y}(t) = [A(t) + B(t)] y(t)$$

Card 1/2

HALANAY, A.

Periodic solutions of the linear systems with retardation.
Studii cer mat 12 no.2:307-391 '61.

1. Membru al Comitetului de redactie, "Studii si cercetari
matematice."

KHALANAI, A. [Halany, A.]

Periodical solutions of the linear systems with retardation. Rev
math pures 6 no.1:141-158 '61. (EEAI 10:9)

(Groups, Theory of) (Linear programing) (Periodicity)
Harmonic analysis) (Asymptotes)

S/044/62/000/008/013/073
C111/C333

AUTHOR: Halanay, A.

TITLE: On a case of stability for non-linear systems

PERIODICAL: Referativnyy zhurnal, Matematika, no. 8, 1962, 42,
abstract 8B188. ("An. Univ. "C.I.Parhon". Ser. stiint.
natur.", 1960, 2, no. 25, 77-81)

TEXT: The limit properties of the motions of the system

$$\frac{\partial}{\partial t} \left(\frac{\partial V}{\partial \dot{q}} \right) - \frac{\partial V}{\partial q} + \frac{\partial w}{\partial q} + Rq = 0$$

are examined. A criterion is given for the asymptotic stability of the zero solution; additional cases are considered.

[Abstracter's note: Complete translation.]

Card 1/1

KHALANAI, A. [Halanay, A.]

Integral stability in the event of differential equations with retarding argument. Rev math pures 5 no.3/4: 541-548 '60. (EEAI 10:5)
(Stability) (Integrals) (Differential equations)
(Asymptotes)

HALANAY, A.

Integral stability for the systems of differential equations with
retarding argument. Studii cerc mat 11 no.2:429-438 '60.
(EEAI 10:9)

1. Comitetul de redactie, Studii si cercetari matematice.

(Groups, Theory of) (Integrals) (Differential equations)

HALANAY, A.

Some characteristics of periodic and nearly periodic systems
with retardation. Rev math Roum 9 no. 7866/-675 '64

L 20070-65

ACCESSION NR: AT4049210

$MQ = \int_{-\infty}^0 x(t+1)Mx(t, t) + M(t)M(t), x(t) = \varphi_t(t) \text{ if } t \in [T_1 - 1, T_1]$
and the functional

$$J(u) = \frac{1}{2} \int_{-\infty}^0 (-\lambda(t)M'(t)u'(t) + \mu(t)H(t)u^2(t)) dt, \quad F > 0, \quad H > 0.$$

ASSOCIATION: University and Mathematical Institute, Bucharest,
Romania

SUBMITTED: 31Aug62

ENCL: 00

SUB CODE: MA, 1B

NO REV Sov: 000

OTHER: 000

Cord 1/3

L 20070-65

ACCESSION NR: AT4049210

and the functional

$$J(u) = \frac{1}{2} \int_0^T (u'(t)P(t)u(t) + u''(t-t')G(t)u(t-t') + u''(t)H(t)u(t))dt,$$

while

$$P > 0, G > 0, H > 0, G(t) = 0 \text{ if } t > T.$$

It is then necessary to find a control function from a given class of allowable functions $u(t)$ such that the functional will be minimized. After assuming certain conditions and doing the transformations twice, it is shown that the problem is reduced to solving a Fredholm type integral equation. An analogy is developed between the obtained system of difference-differential equations and the canonical system of ordinary differential equations. Similar results can be obtained for more general systems with time-lag. The differential equation is then written

Card 2/3

L 21070-65 EWT(d) Pg-4 IJP(c) JXT(cx)

ACCESSION NR: AT4049210

P/2519/64/000/003/0135/0141

(R)

AUTHOR: Halanay, A. (Bucharest)

TITLE: Optimum systems with time-lag and some new problems in
the theory of difference-differential equations

B+1

SOURCE: Polska Akademia Nauk, Instytut Podstawowych Problemów
Techniki, Zagadnienia organ nienieliowych, no. 5, 1964. Druga
Konferencja Organ Nienieliowych (Second Conference on Non-linear
Vibrations), Warsaw, Sept. 18-21, 1962, 135-141

TOPIC TAGS: optimal system, time lag, difference differential
equation

ABSTRACT: A first-order differential equation with variable
coefficients and time-lag

$$x(t) = A(t)x(t) + B(t)x(t-\tau) + M(t)u(t), \quad x(t) = \psi_0(t) \text{ if } t \in [T_0 - \tau, T_0]$$

Card 1/3

KHALANAY, A. [Halanay, A.]

Stability criteria for the system of the differential equations
with retardation argument. Rev math pures 5 no.2:367-374 '60.
(EEAI 10:9)

(Stability) (Differential equations) (Matrices)
(Calculus, Operational)

KHALANAY, A. [Halany, A.]

The almost periodic solutions of the systems of differential equations
with retarding argument and small parameter. Rev math pures 5 no.1:
75-79 '60. (EEAI 10:9)

(Differential equations) (Groups, Theory of)
(Harmonic analysis) (Matrices)

KHALANAY, A. [Halani, A.]

Periodic and almost periodic solutions of the system of differential equations with retardation argument. Rev math pures 4 no.4:685-691
'59. (EEAI 10:9)

(Differential equations) (Asymptotes)
(Harmonic analysis) (Groups, Theory of)
(Calculus)

HALAMAT, A.; BARBALAT, I.

Periodic solutions of the systems of nonlinear differential equations. In French. p. 395.

REVUE DE MATHÉMATIQUES PURES ET APPLIQUÉES. JOURNAL OF PURE AND APPLIED MATHEMATICS. (Academia Republicii Populare Române) Bucuresti, Romania. Vol. 3, no. 3, 1958.

Monthly List of East European Acquisitions (MEAf) IC, Vol. 8, no. 7, July 1959.

Incl.

HALAMAI, A.

Theorems of stability for the systems with retarding argument. In Russian, p. 207.

ANNUAL DE MATEMATICA DIN PRACTICA SI APPLIQUATA. JOURNAL OF MATHEMATICS AND APPLIED MATHEMATICS. (Academia Republicii Populare Romane) Bucuresti, Romania. Vol. 3, no. 2, 1958.

Monthly List of East European Acquisitions (ESEL) (U.S. Vol. 9, no. 1, January 1960). UNCL.

Theorems of the Sturm Type for Self-Conjugated Systems of Differential
Equations of Higher Order 20-114-3-15/60

ASSOCIATION: Mathematical Institute of the Academy of the Rumanian
People's Republic Bucharest (Matematicheskiy institut Akademii Rumynskoy Narodnoy Respubliki Bukharest)

PRESENTED: January 23, 1957, by A. N. Kolmogorov, Member of the Academy

SUBMITTED: August 14, 1956

20-114-3-15/60

'Theorems of the Sturm Type for Self-Conjugated Systems of Differential Equations of Higher Order

"points" is defined. The present paper now proves three general theorems: Theorem 1: All systems of conjugated points, which are not identical, may be separated, i.e. between two points of a system following each other, one and only one point of another system exists. Theorem 2: The system

$$\sum_{i=0}^n (-1)^i \frac{d^i}{dt^i} (\bar{\theta}_{n-i} \frac{d^i y}{dt^i}) = 0 \text{ is assumed.}$$

If $\bar{\theta}_{n-i} > \theta_{n-i}$ and $\bar{t} = t_0$ applies, $\bar{t}_k > t_k$, $\bar{t}_{-k} \leq t_{-k}$ results therefrom. If for a certain i $\bar{\theta}_{n-i} > \theta_{n-i}$ applies, then the inequalities are strictly valid. The third theorem deals with the system

$$\sum_{i=0}^n (-1)^i \frac{d^i}{dt^i} (\bar{\theta}_{n-i} \frac{d^i y}{dt^i}) - \lambda \sum_{i=0}^{n-1} (-1)^i \frac{d^i}{dt^i} (p_i \frac{d^i y}{dt^i}) = 0.$$

These general theorems can be proved in two different ways. There are 6 references, 4 of which are Soviet.

Card 2/3

AUTHORS:

Khalanay, A., Shandor, Sh.

20-114-3-15/60

TITLE:

Theorems of the Sturm Type for Self-Conjugated Systems of Differential Equations of Higher Order (Teoremy tipa Shturma dlya samosopryazhennykh sistem differentsiyal'nykh uravneniy vysshego poryadka)

PERIODICAL:

Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 3, pp 506-507 (USSR)

ABSTRACT:

The present paper investigates the system

$$\sum_{i=0}^n (-1)^i \frac{d^i}{dt^i} (\theta_{n-i} \frac{d^i y}{dt^i}) = 0, \quad \theta_0 > 0; \text{ here } \theta_j \text{ denotes the}$$

steady symmetrical matrices of the order p and y denotes a p -dimensional vector. The points a and b are here described as combined if such a solution $y(t) \neq 0$ of the above system exists that $y(a) = y'(a) = \dots = y^{(n-1)}(a) = 0$, $y(b) = y'(b) = \dots = y^{(n-1)}(b) = 0$ applies. The points a and b are described as conjugated, if they are combined in the sense given above

and if, apart from the interval (a, b) , no point combined with a exists. In conclusion the conception "system of conjugated

Card 1/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800022-6

SHCHENAY, A.

Some qualitative problems in the theory of differential equations with deviating argument. In Russian. p. 127.

REVUE DE MATHÉMATIQUES PURES ET APPLIQUÉES. JOURNAL DE MATEMATICI
MATEMATIQUE. (Academia Republicii Populare Române) Bucuresti, Romania.
Vol. 2, 1957.

Monthly List of East European Acquisitions (EMI) I&E, Vol. 4, no. 1, January 1960.

Doklady Akad.Nauk 111, 923-925 (1956)

CARD 2/2 PG -637

for $M \rightarrow 0$ tends to the singular point of (2).
2. If the index equals two and in a certain neighborhood of the singular point there exists a periodic solution of (2) with the period ω' , where $\omega' \neq \omega$, then for sufficiently small M there exists a periodic solution of (1) with the period ω .

INSTITUTION: Math.Inst. Acad. Rumanian Republ.,Bukarest.

~~CHALANAY, A~~ KHALANAY, A.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/2 PG - 637
 AUTHOR BERSTEIN I., CHALANAI A.:
 TITLE The index of the singular point and the existence of periodic
 solutions for systems with a small parameter.
 PERIODICAL Doklady Akad. Nauk 111, 923-925 (1956)
 reviewed 3/1957

Let be given the system

$$(1) \quad \frac{dx}{dt} = X(x) + \mu Y(x, t, \mu), \quad x \in E^n,$$

where X and Y are n -dimensional vector functions and Y has the period ω in t .
 Let the coordinate origin be an isolated singular point of the generating
 system

$$(2) \quad \frac{dx}{dt} = X(x).$$

In a certain neighborhood Ω of the coordinate origin let all conditions be
 satisfied which guarantee the uniqueness of the solution and its continuous
 dependence on the initial conditions and μ .

The authors prove two theorems:

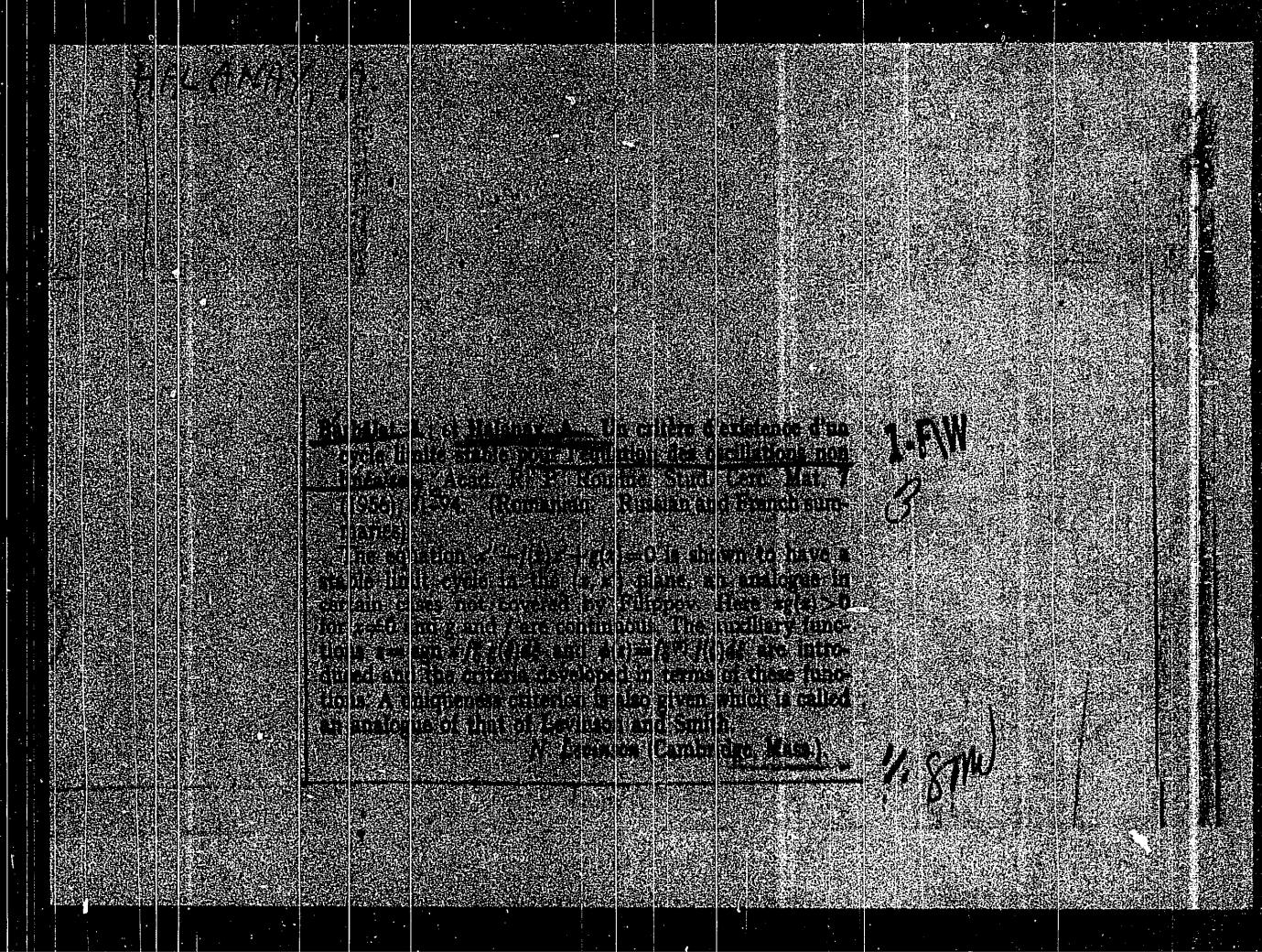
1. If the singular point of (2) is no vortex and its index is different from zero, then for sufficiently small μ , (1) possesses a periodic solution which

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LFW

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2
MATH
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Buletinul 4 - Solutions presque-periodiques des systeme
de equations differentielles non linéaires. Com. Acad.
R.S.R. (Bucarest) 1956, 3-17 (Romanian, Russian
and French summaries).

Sous-titre résumé donné par l'auteur: "On considère le
système $dx/dt = X(t, x)$, où $X(t, x)$ est presque-périodique
par rapport à t uniformément sur rapport à x . Si le
système admet une solution linéaire $w(t)$, $|w(t)| < M$
asymptotiquement stable uniformément par rapport au
domaine $|x| < M$, il admet une solution presque-périodique.
A l'aide de ce théorème général, on obtient les conditions
d'existence des solutions presque-périodiques pour le
système $dx/dt = Ax + f(t, x)$.
M. Ziemba (BMO).

Some Observations on Asymptotic Stability

Halanay, A. Quelques observations sur la stabilité asymptotique. An. Univ. "C. I. Parhon" Bucureşti, Ser. Sti. Nat. 5 (1956), no. 9, 31-38. (Romanian. Russian and French summaries)

1-FW

Consider the complex differential system

$$(1) \quad \frac{dx}{dt} = A(t)x + F(x, t).$$

Assume, for $t > 0$, $F(x, t)$ satisfies a Lipschitz condition in x for a suitably small Lipschitz constant. Let $\lambda_M(t)$ be the largest characteristic root of the Hermitian matrix $\frac{1}{2}(A+A')$. Let $G(t, \tau) = \exp \int_{\tau}^t \lambda_M(u) du$. If $G(t, 0)$ and $\int_0^t G(t, \tau) d\tau$ are bounded for $t > 0$, then the solutions of (1) all tend asymptotically to the origin as $t \rightarrow +\infty$. This theorem, and similar results, are proved using Perron's reduction of the coefficient matrix $A(t)$ to a triangular matrix.

L. Markus (Minneapolis, Minn.)

PLATE A / A

2. Lyapunov, A., Almost-periodic solutions of certain non-linear differential equations. C. R. Acad. Sc. Paris, Ser. A, 247 (1958), 396-399. (Comptes Rendus, Russian and French summaries)

The following two theorems are proved: 1. Let $\psi(t)$ be a bounded solution of a periodic system (with period n). If all the solutions $\psi(t) + \varphi(t)$ are stable in the sense of Lyapunov uniformly with respect to φ , then ψ is asymptotically almost-periodic and the system admits an almost-periodic solution. 2. If a positive semi-trajectory of a dynamical system is stable in the sense of Liapunov and uniformly stable in the sense of Lyapunov, it is asymptotically almost-periodic.

J. L. Massera

Mats

Stern
MF

(1) $\begin{aligned} \dot{x}(t) &= Q(x, y) + \mu X(x, y, t), \\ \dot{y}(t) &= P(x, y) + \mu Y(x, y, t), \end{aligned}$

already discussed in the two papers reviewed above. Here X, Y are functions of class C^1 of x, y, t , periodic in t with period ω . Also Q and P are supposed to be real analytic functions of x and y in a neighborhood Ω of the origin $x=y=0$ which is an isolated singularity. If all real branches through the origin defined by $R(x, y)=xQ+yP=0$ are single, and the set Ω has at least four points of "external sliding" in the sense of Wazewski, and the points p of internal sliding satisfy the condition

$$(2) \quad T^*(p) \cap \text{Ext } (\Omega) \neq \emptyset,$$

then system (1) has at least one periodic solution for every μ in absolute value sufficiently small. In (2) σ is the null-set, $s=\pm 1$, and $T^*(p_0)$ denotes the projection on the xy -plane of the half-trajectory $x=x(t), y=y(t), t \geq t_0$ ($t_0 > 0$) through p_0 at $t=t_0$. Finally, in (2) we have $s=\pm 1$, or $s=-1$, according as $dy/dt > 0$, or < 0 , $r=(x^2+y^2)^{1/2}$, this sign being constant in each sector around the origin defined in Ω by the real branches above. L. Cesari.

Introduction

In [1] and [2] it is shown that if α and β are analytic in a neighborhood of the origin $x = y = 0$, the system of differential equations of the form

$$(1) \quad \begin{cases} \dot{x} = \alpha(x, y) + \mu A(x, y), \\ \dot{y} = \beta(x, y) + \mu B(x, y), \end{cases}$$

where $\mu \in \mathbb{C}$, is supposed to be real functions of x and y holomorphic in a neighborhood of the origin $x = y = 0$. In [1] the results obtained are the following: if A and B are analytic at the origin, then the linearizations of S (cf. [3]) at the origin are stable. The contributions of the theory of nonlinear oscillations [4] (contributions of the theory of nonlinear oscillations [4] (Princeton, 1952, pp. 61-73; MR 14, 537) are taken into account. If $A(x, y) = 0$ and $B(x, y) = 0$ — and if the analytic function β defined by $\beta(x, y) = x\beta_1(y)$ has only simple branches through the origin which have no contacts there and do not change sign in a neighborhood of the origin — in this case from sectors all of the type I in the sense of S. Lefschetz [5] (see also [6]), then system (1) has periodic solutions for μ sufficiently small in absolute value.

(Received by the editors January 1, 1955; revised April 1, 1955.)

Wintner, Alfred: Points singuliers et solutions périodiques d'un système différentiel linéaire dans le voisinage de l'origine. Comptes rendus de l'Académie des sciences de Paris, 230, 1035-1040 (1950).

(U.S.S.R. Com. Acad., R. P. Românie) (Romanian, Russian and French summaries)

This paper concerns a more straightforward application. //

Hallanay, A. Points singuliers et solutions périodiques.

Acad. R. P. Romîne, Bul. Sti. Sec. Mat. Fiz.
7 (1955), 319-328. (Romanian, Russian and French summaries)

3

1 - F/W

The author considers the real system:

$$(1) \quad \begin{aligned} dx/dt &= P(x, y) + \mu X(x, y, t), \\ dy/dt &= Q(x, y) + \mu Y(x, y, t), \end{aligned}$$

where P, Q are homogeneous polynomials of the same degree and X, Y are analytic functions of x, y, t and periodic in t . Denote by $f(\lambda)$ the function

$$f(\lambda) = P(1, \lambda)/Q(1, \lambda)$$

and suppose that in (1) the equation $f(\lambda) = \lambda$ has at least two real roots. (2) $f'(0) < 0$. Then for all μ sufficiently small in absolute value system (1) has periodic solutions. Wozniak's topological theory is used [Ann. Soc. Polon. Math. 20 (1947), 319-313; MR 10, 122] and a theorem of Massera [Duke Math. J. 17 (1950), 457-475; MR 12, 705].

L. Cesar (Lafayette, Ind.)

Barthélémy, L. Remarques sur la note "Points singuliers et solutions périodiques". Acad. R. P. Romîne, Bul. Sti. Sec. Mat. Fiz. 7 (1955), 325-328. (Romanian).

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000617800022-6

HALLAY, A.

Almost-periodic solutions of nonlinear differential equations. p. 13. *ANALELE STIINCIIFICE DIN MATEMATICA SI INFORMATICA DIN ROMANIA* Vol. 6, No. 1, Jan 1956

East European Acquisitions List (EAL) Library of Congress
Vol. 5, No. II, August 1956

HARARY, A.

"Contribution of Soviet mathematics in preparing our young mathematicians", p. 3rd, "Issued by the "Bucharest Society of Pedagogics and Physics, Monthly". (GAZETA MATEMATICA SI FIZICA, SERIA A., Vol. 6, no. 1/II, Aug./Sept. 1954, Bucuresti, Romania).

30: Monthly List of East European Acquisitions, (SEAD), 15, Vol. 1, No. 1, May 1956, Ural.

Theorem A.

period is commensurable with T , otherwise it is false.
Theorem A is true if the limit cycle is either asymptotically
stable or unstable and if its period is commensurable with
 T (in particular, if X_0, Y_0 do not depend on t); if the
cycle is simply stable or semistable not even an almost
periodic solution exists in general.

J. L. Massera (Montevideo).

[Signature]

HANNAY A

H(1) 1954. Relativement à la méthode du petit paramètre. Rev. Roum. Rep. Român. Bul. Sti. Sect. Sti. Mat. Phys. No. 4, p. 83 (1954). (Romanian. Russian and French summaries)

This paper contains the following results. 1. If the second-order system $\ddot{x} = X(x, y)$, $\dot{y} = Y(x, y)$ has a limit cycle, the system $\ddot{x} = X(x, y) + \epsilon f_1(x, y, t, \mu)$, $\dot{y} = Y(x, y) + \epsilon Y(x, y, t, \mu)$, μ being sufficiently small but positive, has a solution in the neighbourhood of the limit cycle. 2. If the second-order system $\ddot{x} = X(x, y, t, \mu)$, $\dot{y} = Y(x, y, t, \mu)$ has a periodic solution, which is asymptotically stable in the large, then $\ddot{x} = X(x, y, t, \mu) + \epsilon f_1(x, y, t, \mu)$, $\dot{y} = Y(x, y, t, \mu) + \epsilon Y(x, y, t, \mu)$ has a periodic solution for sufficiently small μ . 3. If the system $\ddot{x} = X(x, t)$, x being an ω -periodic function of period T , has an asymptotically stable periodic orbit of period T , and if the system $\ddot{x} = X(x, t, \mu)$ has a periodic solution $x = x(t)$, and if the system in the perturbations $\ddot{x} = X(x, t, \mu)$ is autonomous, then $\ddot{x} = X(x, t, \mu)$ has a periodic solution for sufficiently small μ . (Theorem 3, time is stated.) Theorem 2 is true if the periodic solution for $\mu = 0$ is a harmonic vibration (which was probably implicitly assumed by the author) or at least a subharmonic vibration, i.e. if its

(over)

HALANAY, A.

H *1/1/1*
2

Halanay, A. On a linear differential equation with an almost periodic coefficient. Doklady Akad. Nauk SSSR (N.S.) 88, 419-422 (1953). (Russian)

Consider the equation $x'' + px = 0$, where

$$p(t) = \mu + \sum_{k=1}^{\infty} a_k \exp(i\alpha_k t), \quad a_k > \alpha > 0,$$

and $\sum |a_k| < \infty$. It is proved that there exists a solution of the form $x(t) = \exp(i\mu t)\Phi(t)$, where $\Phi(t) = \sum_{k=0}^{\infty} b_k \exp(i\beta_k t)$, $\beta_k = \sum l_i \alpha_i$, the l_i being non-negative integers, and $b_0 = 0$. If 2μ is not representable as $\sum l_i \alpha_i$, where the l_i are as before, then a second solution has the form $x(t) = \exp(-i\mu t)\psi(t)$, where $\psi(t) = \sum_{k=0}^{\infty} c_k \exp(i\beta_k t)$; whereas if $2\mu = \sum l_i \alpha_i$, then a second solution is of the form

8-24-54
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$x(t) = t \exp(i\mu t)\Phi_1(t) + \exp(i\mu t)\Phi_2(t) + \exp(-i\mu t)\Phi_3(t)$,
 where $\Phi_j(t) = \sum_{k=0}^{\infty} d_{jk} \exp(i\beta_k t)$, $j = 1, 2, 3$. This generalizes a result obtained by Putnam and Wintner [Amer. J. Math. 73, 792-806 (1951); these Rev. 13, 557] for the case $\mu = 0$. The proof follows by successive approximations.

E. A. Coddington (Los Angeles, Calif.).

Mathematical Reviews
 Vol. 15 No. 4
 Apr. 1954
 Analysis

Inst. of Mech. & Math.
 Moscow State U.

Periodic orbit	Stability	Period	Approximate period
1	Unstable	1	1
2	Stable	2	2
3	Unstable	3	3
4	Stable	4	4
5	Unstable	5	5
6	Stable	6	6
7	Unstable	7	7
8	Stable	8	8
9	Unstable	9	9
10	Stable	10	10
11	Unstable	11	11
12	Stable	12	12
13	Unstable	13	13
14	Stable	14	14
15	Unstable	15	15
16	Stable	16	16
17	Unstable	17	17
18	Stable	18	18
19	Unstable	19	19
20	Stable	20	20
21	Unstable	21	21
22	Stable	22	22
23	Unstable	23	23
24	Stable	24	24
25	Unstable	25	25
26	Stable	26	26
27	Unstable	27	27
28	Stable	28	28
29	Unstable	29	29
30	Stable	30	30
31	Unstable	31	31
32	Stable	32	32
33	Unstable	33	33
34	Stable	34	34
35	Unstable	35	35
36	Stable	36	36
37	Unstable	37	37
38	Stable	38	38
39	Unstable	39	39
40	Stable	40	40
41	Unstable	41	41
42	Stable	42	42
43	Unstable	43	43
44	Stable	44	44
45	Unstable	45	45
46	Stable	46	46
47	Unstable	47	47
48	Stable	48	48
49	Unstable	49	49
50	Stable	50	50
51	Unstable	51	51
52	Stable	52	52
53	Unstable	53	53
54	Stable	54	54
55	Unstable	55	55
56	Stable	56	56
57	Unstable	57	57
58	Stable	58	58
59	Unstable	59	59
60	Stable	60	60
61	Unstable	61	61
62	Stable	62	62
63	Unstable	63	63
64	Stable	64	64
65	Unstable	65	65
66	Stable	66	66
67	Unstable	67	67
68	Stable	68	68
69	Unstable	69	69
70	Stable	70	70
71	Unstable	71	71
72	Stable	72	72
73	Unstable	73	73
74	Stable	74	74
75	Unstable	75	75
76	Stable	76	76
77	Unstable	77	77
78	Stable	78	78
79	Unstable	79	79
80	Stable	80	80
81	Unstable	81	81
82	Stable	82	82
83	Unstable	83	83
84	Stable	84	84
85	Unstable	85	85
86	Stable	86	86
87	Unstable	87	87
88	Stable	88	88
89	Unstable	89	89
90	Stable	90	90
91	Unstable	91	91
92	Stable	92	92
93	Unstable	93	93
94	Stable	94	94
95	Unstable	95	95
96	Stable	96	96
97	Unstable	97	97
98	Stable	98	98
99	Unstable	99	99
100	Stable	100	100

where $\|x\|_M = \sqrt{\langle x, Mx \rangle}$. The sup norm $\|x\|_{\infty} = \sup_{t \in [0, T]} |x(t)|$ is also used. The space $L^p([0, T]; X)$ consists of all $x \in L^p([0, T]; E)$ such that $\|x\|_{L^p([0, T]; X)} = \left(\int_0^T \|x(t)\|_X^p dt \right)^{1/p} < \infty$. When $p = \infty$, we have $\|x\|_{L^\infty([0, T]; X)} = \sup_{t \in [0, T]} \|x(t)\|_X$. The space $C([0, T]; X)$ consists of all continuous functions $x: [0, T] \rightarrow X$ with the sup norm $\|x\|_{C([0, T]; X)} = \sup_{t \in [0, T]} \|x(t)\|_X$.

ALGEBRAIC
TOPOLOGY

CHAPTER 3. Topological groups and extensions separable
continuous functions. Bull. Math. Soc.

Polish Acad. Sci. 60 (1971) 1047.

The statement of the first theorem of automorphism in Krull's theory of infinite abelian groups is extended to the topology of the automorphism group of a topological group. The topology of the identity component of normal subgroups of finite index in a topological group are the Galois groups of the normal

extensions of finite degree. He deduces some elementary theorems about arbitrary groups with this sort of topology.
Przytycki (Bloomington, Ind.)

S. T. M. / J. A. K.

Source: Mathematical Reviews

Vol. 44 No. 5

HALANAY, A.

Positive determination of the nucleus and stability of automatic systems. Rev math Roum 9 no.8:751-765 '64

ELISCHEROVA, Kamila; HALAMOVA, Viera; BABALA, Jozef

Detection of Listeria monocytogenes in the cerebrospinal fluid of a child. Cesk. pediat. 17 no.1:29-33 Ja '62.

1. Ustav epidemiologie a mikrobiologie, riaditel doc. MUDr. J. Karolcek
I detska klinika, prednosta doc. MUDr. I. Jakubcova Ustav patologickej
anatomie LFUK v Bratislave, prednosta doc. MUDr. M. Brownman.

(LISTERIA INFECTIONS cerebrospinal fluid)

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CONFIDENTIAL: SECURITY, S. (REF ID: A61300)

GFD 94084

HALAMOVÁ, Sarolta
GERHART, Jaroslav; VARI, Tibor; HALAMOVÁ, Sarota

Occupational emphysema and possibilities of its therapy. Pracovní
lek. 9 no.3:195-202 June 57.

1. Z Liečebného ustavu ROH Stos-kupele, veduci lekar MUDr
Jaroslav Gerhart.

(EMPHYSEMA, PULMONARY, therapy,
occup. (Cz))

(OCCUPATIONAL DISEASES, therapy,
pulm. emphysema (Cz))

HALAMEK, Ferdinand, dr. inz., NEDOROST, Cestmir, inz.

Heating of sludge digesters. Vodni hosp 13 no.6:216-218 '63.

1. Ustredni kanalizacni cisterna, Brno.

HALAMEK, F.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application - Water Treatment, Sewage Water.

H-5

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8481

Author : Halamek F.

Inst :

Title : Effect of Synthetic Detergents on Purification of Sewage
Water.

Orig Pub : Voda, 1957, 36, No 5, 138-139

Abstract : A review.

Card 1/1

CZECHOSLOVAKI/Chemical Technology. Chemical Products and Their Applications. Water Treatment. Sewage. H-5

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 23843

(70 percent) with the use of screens. It is recommended to coagulate waste waters with FeCl_3 (30 mg/l) in conjunction with lining, employing 20 mg/l $\text{Ca}(\text{OH})_2$. For the removal of helminths it is recommended to filter waste waters employing sand filters (prior to chlorination). -- S. Yavorovskaya

Card : 2/2

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Water Treatment. Sewage. H-5

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 23843

Author : Halamek, F.

Inst : -

Title : Purification of Waste Waters from Slaughter-Houses.

Orig Pub : Voda, 1957, 36, No 4, 95-96

Abstract : Waste waters contain high concentrations of minerals and organic impurities and large quantities of various bacteria and helminths (Enteritis-Coli, TBC, Anthrax, Ascaris Lumb., Euterobius verm., and others). Coarsely dispersed impurities may be partially removed

Card : 1/2

H-25-

HALAMEK F.

CZECHOSLOVAKIA / Chemical Technology. Chemical Products. H
Water Treating. Sewer Waters.

Abs Jour: Ref Zhur-Khimia, 1958, No 20, 67911.

Author : Halamek F.

Inst : Not given.

Title : Observed Channeling of Water Streams Containing
High Concentrations of Activated Clay in the Secon-
dary Settler of Biochemical Sewer Water Treating
Installations.

Orig Pub: Voda, 1956, 35, No 12, 390-392.

Abstract: Phenomena that result in channeling of water are indicated. Design of the secondary settlers should be based on depth of 3-3.6m depending on the concentration of activated clay used. Arrangements for faster settling and compacting of activated clays are described.

Card 1/1

HALAMEK, F.

Purification of waste waters. (To be contd.) p. 226.
VODA, Prague, Vol. 34, no. 8, Aug. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

BELOHRADSKY, Frantisek; ECKMAYER, Zdenek; HALAMEK, Cyril

Soluble collagens. Kozarstvi 13 no.4:108-110 Ap '63.

1. Vyzkumny ustav kozedelny, Gottwaldov.

HALAMEK, C.

COUNTRY	: CZECHOSLOVAKIA
CATEGORY	: Chemical Technology. Chemical Products and Their Applications. Leather. Fur. Gelatine.*
ABS. JOUR.	: REKhim., No. 23 1959, No. 84583
AUTHOR	: Halamek, C.; Leuner, J.; Nemec, R.; Svecova, J.
IPST.	:
TITLE	: Reduction of Swelling of the Flesh Side Gel- atine
ORIG. PUP.	: Kozarevici, 1959, 8, No. 2, 261-263
ABSTRACT	: According to literature data, the swellability of the flesh side gelatine may be reduced by a factor of two, if the dry product is kept for 48-100 hours in the atmosphere of air, saturated with steam at 50°. This method pro- duces dependable results, but requires pro- vision of humidifying chambers as well as in- creased operating cost as the result of the repeated drying. Based on the above consider- ations, it is more economical to obtain Tanning Materials. Industrial Proteins.
CARD:	: 1/2

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and Their Application: Leather, Fur, Gelatin. Tanning Materials. Industrial Proteins. H-35

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 17970

they are refined at the place where they are obtained. The question of economic utilization of oak red and chrome dyed by-products has not been settled. From the wastes derived in treating leather which was not dyed with chrome, certain types of glue could be obtained. From the dyed wastes, the so-called "hydrolase of glutin", used as a component in the feed mixtures for pigs, is produced in the Czechoslovakian leather factories. A perfected method for the manufacture of the above product under pressure has been developed. This method results in doubling in the product yield at the reduced steam consumption. Investigations are being conducted in the improvement of manufacturing methods for the production

Card 2/3

CZECHOSLOVAKIA / Chomical Technology, Chemical Products and Their Application. Leather, Fur, Gelatin. Tanning Materials. Industrial Proteins. H-35

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 17970

Author : Halamek, C.; Radil, M.; Lacnac, J.

Inst : Not given

Title : Problems of Treating Leather Industry Wastes

Orig Pub : Kozarstvi, 1957, 7, No 10, 275-278

Abstract : The most valuable wastes are those from which glues can be derived. Their best part is utilized in making artificial sausage casings or high quality gelatine. From the less valuable wastes, technical gelatine and glues are derived. In profitability these types of wastes justify investment for special plants and installations. Refining of wool, bristle, fats, and others in special factories is not feasible and may be of interest only if

Card 1/3

H-161

H

20

The finishing or photographic gelatin by cationic ion exchangers. Cyril Halamek, Jaroslav Lachák, Bohumír Němec, and Jitka Špicková (Leather & Allied Trades Research Inst., Gottwaldov, Czech.). *Vida a výstavu v průmyslu hmotodělání* 2, 69-70 (1957).—Photographic hide gelatin (I) for x-ray emulsion prepns. must be more sensitive and the ripening time shorter, but the rest of its photographic properties must be retained. This goal was attained by addn. of colloidal Al(OH)₃ (II), but the removal of II suspension from I solns. was difficult. The cationic ion exchangers (III) FK and FN have been tried. The ion-exchanging capacity of 1 l. swollen III is 11-17 g. CaO. A filtered I soln. at 50° passed through an 80-cm. column of III with a contact time of 5-6 min. III of smaller granulation than 0.5 mm. had too long a contact time. Regeneration of III with a 10% soln. of NaCl lasted 60 min.; 500-820 ml. of swollen III is necessary for 1 kg. of dry I, contg. 3% CaO. Photochem. properties of I treated by III were studied. The treatment of I by III shortens the time of ripening from over 180 min. to 45-180 min. The tendency to fogging is lowered, but the sensitivity is influenced. The viscosity is somewhat lower, and the content of Fe is lower by 43%. The treatment by III is more advantageous in the Na cycle. Inhibiting substances of I are most probably low-mol. proteins with a cationic charge. L. Mašner.

R

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Their Application - Photographic Materials.

H.

- Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 30039
- Author : Halanek, C., Lacnak, J., Nemec, B., Spickova, J.
Inst :
Title : The Treatment of Photographic Gelatin With Cation-
Exchange Resins.
- Orig Pub : Veda a vyzk. v prumyslu kozedeln, 2, 69-76 (1956)
(in Czech with summaries in English and Russian)
- Abstract : The treatment of gelatin (I) solutions obtained from
animal skins with cation exchange resins (CER) yields I
which permit a high rate of blackening of the emulsion
without impeding the maximum sensitivity or producing
fog. CER of Czech manufacture can be used provided
that they are of sufficiently coarse grain size.
The treated I contain less fats and suspended solids
and their viscosity is not markedly reduced.

Card 1/2

Czechoslovakia /Chemical Technology. Chemical Products I-14
and Their Application

Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31785

mixtures are precipitated (on a simple mixing of all the waters only 26% are precipitated). The precipitation occurs in the form of large, rapidly settling, flocks.

Card 2/2

KUBELKA, CYRIL
Czechoslovakia /Chemical Technology, Chemical Products and Their Application

Water treatment. Sewage water.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31785

Author : Kubelka Vaclav, Halamek Cyril

Title : Decontamination of Sewage Water of Leather Factories

Orig Pub: Kozarstvi, 1955, 5, No 10, 194-197; No 11, 215-217

Abstract: Sewage water contains protein substances, pathogenic microbes and spores and toxic substances (As, sulfides). It is recommended to separate the most concentrated acidic and alkaline waters and to mix them. As a result of such neutralization up to 35% of the total amount of organic ad-

Card 1/2

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CZD 39

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of H_2O_2 oxidative IV is produced. Desensitizers of IV are discussed. Impurities of IV are eliminated by dialysis, electrodialysis, adsorption on active C or better on Al(OH)₃. Gradation properties of IV are little known. Perhaps HCl/BO-cystine may be of some influence. The re-arrangement properties of IV can be best attained by the choice of raw material and by a controlled washing and liming. During the production, oxidation with H_2O_2 can be used, which IV has a low sensibility, matures slowly, and does not easily cloud. More active IV is produced by the addn. of SO_2 , or thio-sulfates, giving quicker maturing. SO_2 is also a disinfectant. In case oxidative IV is needed, a small quantity of pure phenol is added. Na_2SO_4 is often used for disinfection of IV. Larger quantities of uniform IV are produced by mixing of individual production charges.

The product is photographically tested. IV is further adjusted by the producers of photographic material. Special products diminish the formation of yellow veil. Hydrolyzed egg albumin, Ru, Cd, Pb, and Au salts are sometimes added.

L. Masner

HANAK, OTTIL

CZECH

✓ The production of gelatin for photographic purposes.
Alexej Bycichin and Cyril Galunek (Leather & Allied
Trades Research Inst., Gottwaldov, Czech.) Kokusai
4, 33-9, 75-80, 99-100 (1951).—The production of gelatin
(I) from hide fleatings is described. About 35% of the
production is suitable for photographic purposes. The
structure and electron microscopy of collagen (II) and the
theory of glue formation are described. Compared to II,
glutin (III) contains more hydroxyproline and methionine,
less valine, phenylalanine, tyrosine, and amino groups. III
can be produced by an acid hydrolysis of II. Also a heat
degradation of II followed by a hydrolysis by acids or al-
kalies is possible, but the solas. are too viscous. The
technological method is liming with $\text{Ca}(\text{OH})_2$. III is extd.
at 55-70°. Sterility during the process is important.
Physicochem. properties of I are described. Most im-
portant for the photographic I are viscosity, m.p., gel
strength, and absence of mech. impurities. The color is
not so important. The fat content of I must be as low as
possible, which is important especially for I from hog
skins. Photochem. properties of I are reviewed. Photo-
graphic I (IV) must contain 0.001% of S on dry wt., not
much more or less. Labile S can be added to IV, by the
addn. of thiosulfates or sulfides. The oxidation-reduction
property of IV is the most important factor. By the addn.

OVER

CA

Hlaváček

29

The color of commercial hide gelatin. A. Bylchín, C. Halamek, and K. Hlaváček. *Chem. Listy* **44**, 136 (1950).
cf. *C.A.* **44**, 9714e.—The brownish coloration of com. gelatin
is attributed to the oxidation products of certain amino
acids of the phenylalanine type. The browning of solns
of such acids with time and by oxidizing agents was in-
vestigated. The influence of Fe was followed. No de-
cisive results were obtained. M. Hudlický

P.A.

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Directive Materials,
Supplies + Other Supplies

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Determination of Zinc in Gelatin. C. HALAMK and K. HAWACK. *Zeszyty Naukowe Akademii Rolniczej w Lublinie, Wydział Chemiczny*, 1980, 25, 36-41. *Ser. IV*, 1981, 22, 185-190. When gelatin is chilled in galvanized containers it absorbs zinc. This may be avoided by using aluminum. The absorbed zinc may be determined by calcining the gelatin and estimating the zinc in the ash colourimetrically as zinc diethyldithiocarbamate. VII

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(A)

HADAMĚK, ...

Czechoslovakian photographic gelatin A. Bydžov
and C. Hadaměk (Lab. Entrepr. mat. SVT, Brno)
Science et Ind.
Chem. Listy 43, 220-31(1949)(in Czech); T. H. James
Phot. 21, 144(1950).

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Plans and cares in Pest County. Munka 10 no.3:17 Mr '60.

1. Pest megyei Szakszervezeti Megyei Tanacs kulturalis felelise.

TARNOWSKI, J., dr. inz.; SUCHODOLSKI, Zbigniew, mgr. inz.; OSWEDA,
Josef, mgr. inz.; HALAMAJ, Wladyslaw, mgr. inz.; CYBULSKI,
Waclaw, prof. dr. inz.;

Discussion concerning J. Tarnowski's paper on "Method of
investigating the degree of danger caused by ejections of coal
and squealers as well as the behavior of gas around underground
workings. Przegl gorn 19 no. 4;233-236 Wy '63.

1. Kopalnia Doswiadczałna Barbara, Glowny Instytut Gornictwa
(for Cybulski)

HALAMAJ, Wladyslaw, mgr inz.; SUCHODOLSKI, Zbigniew, mgr inz.;
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HALMAI (HUTFLESZ), Endre

Error diagram of the break point of the open traverse. Sheet
kart 17 no 1:4-9 '65.

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1. Z Centralneho laboratoria OUNZ v Martine, prednosta MUDr. J. Sedlak,
a z interneho oddelenia OUNZ v Martine, prednosta MUDr. M. Pizl.

(HEART FAILURE CONGESTIVE ther)
(PROGESTERONE ther)

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Results of the contest on Technical Progress in Industrial
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